## ❑ Using the INFO button (Now & Next guide)

(depending on the country and model)

The display identifies the current channel and the status of certain audio-video settings.

The Now & Next guide shows daily TV program information for each channel according to the broadcasting time.

When you press the **INFO** button, a channel information banner will appear on the top of the screen. And then press the **ENTER** button, you can see the details of the program.

- Scroll ◄ ► to view information for a desired program while watching the current channel.
- Scroll ▲ ▼ to view information for other channels. (depending on the country and model)

# ❑ Memorizing channels

## ■ Auto Program

(depending on the country and model)

MENU → Broadcasting → Auto Program → ENTER

Scans for a channel automatically and stores in the TV.

- **Both**: Air and Cable antenna signals.
- **Air**: Air antenna signal.
- **Cable**: Cable antenna signal.

**NOTE**

- Automatically allocated program numbers may not correspond to actual or desired program numbers. If a channel is locked, the PIN input window appears.

## How to Stop Auto Programming

1. Press the **ENTER↵** button.
2. A message will ask **Stop Auto Program?** Select **Yes** by pressing the ◄ or ► button.
3. Press the **ENTER↵** button.

## Auto Tuning

(depending on the country and model)

MENU → Broadcasting → Auto Tuning → ENTER

Scans for a channel automatically and stores in the TV.

- Automatically allocated program numbers may not correspond to actual or desired program numbers. If a channel is locked, the PIN input window appears.
- If the antenna is connected to ANT IN (CABLE), select **Cable** and if it is connected to ANT IN (AIR), select **Air**. (depending on the country and model)

### When Antenna Source is set to Both, Air or Cable

When selecting **Both**: Provide a value to select both **Air** and **Cable** options.

When selecting **Air**: Provide a value to scan for **Both**, **Digital** and **Analog** channels.

When selecting **Cable**: Provide a value to scan for **Analog** channels.

- **Analog Cable System**: Select the **Analog Cable System** among **STD**, **HRC** and **IRC** by pressing the ▲ or ▼ button, then press the **Search**.

## Antenna

MENU → Broadcasting → Antenna → ENTER

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e. an **Air** or a **Cable** system).

# ❑ Using the Channel menu

## ■ Channel List

(depending on the country and model)

MENU → Broadcasting → Channel List → ENTER

The **Channel List** contains the channels your TV displays (added channels) when you press the channel button. You can view channel information and channel mode. Press ►(**Mode**) button to change the channel mode.

When you press the **CH LIST** button, **Channel List** screen is displayed at once.

### Channel Sorting (depending on the country and model)

- **Number / Name**: Arrange the channel order according to channel number or name on the list.

## Channel Mode

- **Antenna**: Switch between **Air** and **Cable**.
- **Edit Favorites**: Set channels you watch frequently as favorites. Add or delete the selected channel in **Favorites 1-5**.

  For detailed information about using **Edit Favorites**, refer to "**Edit Favorites**".
- **Favorites 1-5**: Show all favorite channels, arranged in up to five groups. Each group has a separate screen.

  The TV displays **Favorites 1-5** only if you have added favorites using **Edit Favorites**.

- **Added Ch.** (depending on the country and model): Show all added channels.
- **All** (depending on the country and model): Shows all currently available channels.
- **TV** (depending on the country and model): Shows all currently available digital channels.
- **Analog** (depending on the country and model): Shows all currently available analog channels.

## Guide

(depending on the country and model)

MENU → Broadcasting → Guide → ENTER

The EPG (Electronic Program Guide) information is provided by broadcasters. Using program schedules provided by broadcasters, you can specify programs you want to watch in advance so that the channel automatically changes to the selected program channel at the specified time. Program entries may appear blank or out of date depending on a channel status.

- A Red (**Quick Nav**): Viewing the TV programs on the list quickly using ◄/► buttons.
- B Green (**Channel Category**): Select the type of channels you want to display.
- C Yellow (**Schedule Manager**): Moves to the reserved programs in **Schedule Manager**.

- (**Tools**) (depending on the country and model): Displays the option menu. The option menu items that appear may differ depending on the channel status and type.
  - **Watch / Schedule Viewing**
    - When selecting the current program, you can watch the selected program.
    - When selecting the future program, you can reserve to watch the selected program. To cancel the schedule, press the **ENTER** button again and select **Cancel Schedule**.
  - **More Info**: Display details of the selected program.

## Schedule Manager

MENU → Broadcasting → Schedule Manager → ENTER

You can set a desired channel to be displayed automatically at the intended time. In addition, you can view, modify or delete a channel you have reserved to watch.

You must set the current time first using the **Time** → **Clock** function in the **System** menu to use this function.

1. Press the **Schedule** on the **Schedule Manager** screen. The **Schedule Viewing** menu appears.
2. Press the ◄/►/▲/▼ buttons to set each option menu.
   - **Channel**: Select the desired channel.

- **Repeat**: Select **Once**, **Manual**, **Sat~Sun**, **Mon~Fri** or **Everyday**. If you select **Manual**, you can set the day you want.

  A check (✓) mark indicates a day you selected.

- **Date**: You can set a desired date.

  Date is available only when you select **Once** in **Repeat**.

- **Start Time**: You can set the start time you want.

If you want to edit or cancel a reserved schedule, select the reserved schedule on **Schedule Manager**. Then press the **ENTER** button and select the **Edit** or **Delete**.

## Edit Channel

(depending on the country and model)

MENU → Broadcasting → Edit Channel → ENTER

You can edit or delete channels.

### Deleting a channel from the channel list

1 Go to **Edit Channel** screen.

2. Press the ▲/▼ buttons to select the desired channel, and then press **ENTER** button. The (✓) mark indicates the channel you've selected.
   - You can select more than one channel.
   - Press **ENTER** button again to deselect the channel.

3. Press B (**Delete**) button. The selected channel has been deleted from the channel list.

## Adding a channel to the channel list (depending on the country and model)

1. On the **Edit Channel** screen, press the **TOOLS** button, and then select the **Category**.
2. Select **All** and press the **OK** button. A deleted channel appears in **All** channel list.
   - Your TV will display all channels, including channels you deleted from the channel list, on the **All**.
   - A gray-colored channel indicates the channel has been deleted.
3. Select a deleted channel, and then press the B (**Add**) button.

## Adding a channel to the channel list TOOLS

(depending on the country and model)

(analog channels only)

This function is only available in the Tools menu.

1. Press the **TOOLS** button on the screen, and then select **Channel Add/ Delete**.
2. Press the ▲/▼ button to select the deleted channel, and then select **Add**.

Using the colored and function buttons with the **Edit Channel**.

- A Red (**Change Number**) (depending on the country and model) (digital channels only): Changes channel order on the channel list.
- B Green (**Delete** (depending on the country and model))
  - **Delete**: Deletes a channel from the channel list.
  - **Add**: Adds a deleted channel. It only appears when you select the deleted channel in **All**.

- C Yellow (**Lock / Unlock**): Lock a channel so that the channel cannot be selected and viewed. / Unlock the channel that you locked.

  This function is available only when the **Channel Lock** is set to **On**.

- The PIN input screen appears. Enter your 4-digit PIN, the default of which is “0-0-0-0”. Change the PIN using the **Change PIN** option.
- D Blue (**Select All / Deselect All**): Selects or deselects all channels at once.
- 0~9 (**Go To**): Goes to channel directly by pressing numbers (0~9).
- ◇ (**Page**): Moves to next or previous page.
- ↵ (**Done**): Completes changing the channel order.

- (**Tools**): Displays the option menu. The option menu items that appear may differ depending on the channel status and type.
  - **Sorting** (depending on the country and model) (digital channels only): Change the list ordered by channel number or channel name.
  - **Antenna**: Select the desired broadcasting signal.
  - **Category**: Change the channel mode. The selected channel mode is displayed.
  - **Edit Favorites**: Go to **Edit Favorites** screen directly.
  - **Rename Channel** (analog channels only): Assign a name of up to five characters to a channel. For example, Food, Golf, etc. This makes it easier to find and select the channel.
  - **Channel Info** (depending on the country and model) (digital channels only): Display details of the selected channel.
  - **Information**: Display details of the selected program.

## Edit Favorites TOOLS

MENU → Broadcasting → Edit Favorites → ENTER

You can add, edit or delete favorite channels.

### Adding a channel to the Favorites 1-5

1. Go to **Edit Favorites** screen.
2. Press the ▲/▼ buttons to select the desired channel, and then press **ENTER** button.
3. Choose a specific favorite list among **Favorites 1-5** using B (**Change Fav.**) button, and then press the D (**Add**) button. The selected channel has been added in **Favorites 1-5**.

   One favorites channel can be added in several of favorites among **Favorites 1-5.**

## Deleting a channel from the Favorites 1-5

1. On the **Edit Favorites** screen, select the favorite list using **B** (**Change Fav.**) button.
2. Move to favorite list, and then select the desired channel you want to delete.
3. Press the **D** (**Delete**) button. The selected channel has been deleted from the **Favorites 1-5**.

   If you want to change the favorite channel order, press the **A** (**Change order**) button and change the order using ▲/▼ buttons.

Using the colored and function buttons with the **Edit Favorites**.

- A Red (**Category / Change order**)
  - **Category**: Changes the channel mode. The selected channel mode is displayed.
  - **Change order**: Changes the favorite channel order.
  - (**Done**): Completes changing the channel order.
- B Green (**Change Fav.**): Changes favorite list among **Favorites 1-5**.
- C Yellow (**Select All / Deselect All**): Selects or deselects all channels at once.
- D Blue (**Add / Delete**)
  - **Add**: Adds selected channels to **Favorites 1-5**.
  - **Delete**: Deletes the favorite channel from **Favorites 1-5**.

- 0~9 (**Go To**): Goes to channel directly by pressing numbers (0~9).
- ⇕ (**Page**): Moves to next or previous page.
- ⎙ (**Tools**): Displays the option menu. The option menu items that appear may differ depending on the channel status and type.
  - **Copy to Favorites**: Edit the selected favorite channel in **Favorites 1-5**. You can add or delete from favorite list.
  - **Rename Favorites**: Assign your own favorite channel name.
  - **Antenna**: Select the desired broadcasting signal.
  - **Sorting** (depending on the country and model) (digital channels only): Change the list ordered by channel number or channel name.
  - **Edit Channel**: Go to **Edit Channel** screen directly.
  - **Information**: Display details of the selected program.

# ❑ Locking Programs

## ■ Program Rating Lock

(depending on the country and model)

MENU → Broadcasting → Program Rating Lock → ENTER

- Program Rating Lock: Prevent unauthorized users, such as children, from watching unsuitable program with a user defined 4-digit PIN code.
  - It is only available in Brazil signal.
  - The PIN input screen appears before the setup screen.
  - Enter your 4-digit PIN, the default of which is 0-0-0-0. Change the PIN using the Change PIN option.

## Channel Lock

MENU → Broadcasting → Channel Lock → ENTER

Lock channels to prevent unauthorized users, such as children, from watching unsuitable program.

The PIN input screen appears. Enter your 4-digit PIN, the default of which is “0-0-0-0”.

## ■ Channel Settings

(depending on the country and model)

MENU → Broadcasting → Channel Settings → ENTER

- **Digital Manual Tuning** (depending on the country and model)
  (digital channels only)

  Scans for a digital channel manually and stores in the TV. Press the **New** button to search the digital channels by adjusting the **Channel** or **Frequency**.

  If a channel is locked, the PIN input window appears.

  **Digital Manual Tuning** is only available in digital TV mode.

  - **Channel**: Set the channel number using the ▲/▼ or number (0~9) buttons.
  - **Frequency**: Set the frequency using the number buttons.

- **Fine Tune**

  (analog channels only)

  If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually.

  - Fine tuned channels that have been saved are marked with an asterisk “*” on the right side of the channel number in the channel banner.
  - To reset the fine-tuning, select **Reset**.

- **Color System** (depending on the country and model)
  (analog channels only)

  Normally the TV can receive image and sound with good quality in **Auto** mode. This mode detects the color signal sources automatically. If the color implementation is unsatisfactory, select any of **PAL-M**, **PAL-N** or **NTSC**.

## Subtitle TOOLS

(depending on the country and model) (digital channels only)

MENU → Broadcasting → Subtitle → ENTER

Use this menu to set the **Subtitle** mode.

The subtitle feature does not work in Component or HDMI modes.

- **Subtitle**: Switches subtitles on or off.
  **Subtitle Mode**: Sets the subtitle mode.
  **Subtitle Language**: Sets the subtitle language.
  - If the program you are watching does not support the **Hearing Impaired** function, **Normal** automatically activates even if the **Hearing Impaired** mode is selected.
  - English is the default in cases where the selected language is unavailable in the broadcast.
- **Primary Subtitle**: Sets the primary subtitle.
- **Secondary Subtitle**: Sets the secondary subtitle.

## Caption TOOLS

(On-Screen Text Messages)

MENU → Broadcasting → Caption → ENTER

- **Caption**: You can switch the caption function on or off. If captions are not available, they will not be displayed on the screen.

  The Caption feature does not work in Component or HDMI modes.

- **Caption Mode**: You can select the desired caption mode.

  The availability of captions depends on the program being broadcasted.

  **CC1~CC4 / Text1~Text4**: (analog channels only) The Analog Caption function operates in either analog TV channel mode or when a signal is supplied from an external device to the TV. (Depending on the broadcasting signal, the Analog Caption function may or may not work with digital channels.)

## Audio Options

MENU → Broadcasting → Audio Options → ENTER

(depending on the country and model)

- **Audio Language**

  (digital channels only)

  Change the default value for audio languages.

  **Primary Audio / Secondary Audio** (depending on the country and model): You can set the primary or secondary audio.

  The available language may differ depending on the broadcast.

- **Multi-Track Sound** TOOLS

  (analog channels only)

  **Mono**: Choose for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.

  **Stereo**: Choose for channels that are broadcasting in stereo.

  **SAP**: Choose to listen to the Separate Audio Program, which is usually a foreign-language translation.

  Depending on the particular program being broadcast, you can listen to **Mono, Stereo** or **SAP**.

- **Audio Format** (depending on the country and model)

  (digital channels only)

  Select the audio format of current broadcasting. The available items may differ depending on the broadcasting status.

# ❑ Changing the Preset Picture Mode

## ■ Picture Mode TOOLS

MENU → Picture → Picture Mode → ENTER

Select your preferred picture type.

When connecting a PC, you can only make changes to the **Entertain** and **Standard**.

- **Dynamic**: Suitable for a bright room.
- **Standard**: Suitable for a normal environment.
- **Natural**: Reduces eye strain.

  This function is only available on certain models in specific geographical areas.

- **Movie**: Suitable for watching movies in a dark room.
- **Entertain**: Suitable for watching movies and games.

  It is only available when connecting a PC.
- **Stadium**

  When you set **Soccer Mode** (**MENU** → **Applications** → **Soccer Mode**) to **On**, both **Picture Mode** and **Sound Mode** are automatically set to **Stadium**. The TV changes the picture and sound settings so that they are suitable for soccer events.

  This function is only available on certain models in specific geographical areas.

# ❑ Adjusting Picture Settings

## ■ Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

MENU → Picture → Backlight → ENTER

Your television has several setting options for picture quality control.

NOTE

- When connecting a PC, you can only make changes to **Backlight**, **Contrast**, **Brightness** and **Sharpness**.
- Settings can be adjusted and stored for each external device connected to the TV.
- Lowering picture brightness reduces power consumption.

## Picture Size TOOLS

(depending on the country and model)

MENU → Picture → Picture Size → ENTER

Set the various picture options such as picture size and aspect ratio.

- **Picture Size** TOOLS: Your cable box/satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.

  **16:9**: Sets the picture to 16:9 wide mode.

  **Zoom1** (depending on the country and model): Use for moderate magnification.

  **Zoom2** (depending on the country and model): Use for a stronger magnification.

  **Wide Fit** (depending on the country and model): Enlarges the aspect ratio of the picture to fit the entire screen.

**Wide Zoom** (depending on the country and model): Magnifies the picture size more than 4:3.

**Zoom** (depending on the country and model): Magnifies the 16:9 wide pictures vertically to fit the screen size.

**4:3**: Sets the picture to basic (4:3) mode.

Do not watch in 4:3 format for a long time. Traces of borders displayed on the left, right and center of the screen may cause image retention (screen burn) which are not covered by the warranty.

**Screen Fit**: Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are input.

**Custom**: Magnifies or shrinks 16:9 pictures vertically and/or horizontally. A magnified or shrunk picture can be moved left, right, up, and down.

NOTE

- The picture size can vary depending on the input resolution when content is played using **Videos** under **Media Play**.

- **Position**: Adjust the picture position.
  - Only available in **Zoom1**, **Zoom2**, **Wide Fit** or **Screen Fit**. (depending on the country and model)
  - Only available in **Screen Fit** or **Wide Zoom**. (depending on the country and model)

  Adjust the **Position** by using ▲/▼ buttons in the **Position** screen.
- **Zoom/Position** (depending on the country and model): Adjust the picture size and position.

  This function is only available when **Picture Size** is set to **Zoom** or **Custom**. However, you cannot change the picture position when the TV is tuned to a digital channel and **Picture Size** is set to **Custom**.

- After selecting **Screen Fit** in HDMI (1080i/1080p) or Component (1080i/1080p) mode, you may need to center the picture. Select **Position**, then follow the steps below in the **Position** screen.
  1. Select the **Position**, press the **ENTER** button.
  2. Select the **Position** button, and then press **ENTER**.
  3. Press the ▲, ▼, ◄ or ► button to move the picture.
  4. Press the **ENTER** button.
- If you want to reset the position you adjusted, select **Reset** in the **Position** screen. The picture will be set to its default position.
- Depending on the input source, the picture size options may vary.

## PIP

MENU → Picture → PIP → ENTER

You can watch the TV tuner and one external video source simultaneously. **PIP** (Picture-in-Picture) does not function in the same mode.

**NOTE**

- For PIP sound, refer to the **Sound Select** instructions.
- If you turn the TV off while watching in PIP mode, the PIP window will disappear.
- You may notice that the picture in the PIP window becomes slightly unnatural when you use the main screen to view a game or karaoke.

- PIP Settings

| Main picture | Sub picture |
| --- | --- |
| Component, HDMI1, HDMI2/DVI | TV |

- **PIP**: Activate or deactivate the PIP function.
- **Antenna**: Select either **Air** or **Cable** as the input source for the sub-screen.
- **Channel**: Select the channel for the sub-screen.
- **Size**: Select a size for the sub-picture.
- **Position**: Select a position for the sub-picture.
- **Sound Select**: You can choose the desired sound (**Main** or **Sub**) in **PIP** mode.

# ❑ Changing the Picture Options

## ■ Advanced Settings

MENU → Picture → Advanced Settings → ENTER

(available in **Standard / Movie** mode)

When connecting a PC, you can only make changes to the **White Balance** and **Gamma**.

- **Dynamic Contrast**: Adjust the screen contrast.
- **Black Tone**: Select the black level to adjust the screen depth.
- **Flesh Tone**: Emphasize pink “Flesh Tone”.
- **RGB Only Mode**: Displays the **Red**, **Green** and **Blue** color for making fine adjustments to the hue and saturation.

- **Color Space**: Adjust the range of colors available to create the image.
- **White Balance**: Adjust the color temperature for a more natural picture.

  **R-Offset / G-Offset / B-Offset**: Adjust each color’s (red, green, blue) darkness.

  **R-Gain / G-Gain / B-Gain**: Adjust each color’s (red, green, blue) brightness.

  **Reset**: Resets the White Balance to it's default settings.

- **Gamma**: Adjust the primary color intensity.
- **Motion Lighting**: Reduce power consumption by brightness control adapted motion.
  - When you change the **Backlight**, **Contrast** or **Brightness**, the TV sets **Motion Lighting** to **Off**.
  - Only available in **Standard** mode.

## Picture Options

MENU → Picture → Picture Options → ENTER

When connecting a PC, you can only make changes to the **Color Tone**.

- **Color Tone**: Adjusts the color tone.
  - **Warm1** or **Warm2** will be deactivated when the picture mode is **Dynamic**.
  - Settings can be adjusted and stored for each external device connected to an input on the TV.

- **Digital Clean View**: If the broadcast signal received by your TV is weak, you can activate the **Digital Clean View** feature to reduce any static and ghosting that may appear on the screen.

  When the signal is weak, try other options until the best picture is displayed.

  **Auto Visualization**: When changing analog channels, displays signal strength.

  Only available for analog channels.

  When the **INFO** button is pressed, the signal strength bar is displayed.

  When bar is green, you are receiving the best possible signal.

- **MPEG Noise Filter**: Reduces MPEG noise to provide an improved picture quality.

- **HDMI Black Level**: Selects the black level on the screen to adjust the screen depth.
  - Available only in HDMI mode (RGB signals).
- **Film Mode**: Sets the TV to automatically sense and process film signals from all sources and adjusts the picture for optimum quality.
  - Available in TV mode and external input mode which supports SD (480i / 576i) and HD (1080i) signals except in PC mode.
  - If the screen does not seem natural, change its option to **Off / Auto1/ Auto2** in **Film Mode**.

- **LED Clear Motion** (Depending on the model): Removes drag from fast scenes with a lot of movement to provide a clear picture.
  - It will be deactivated when the picture mode is set to **Natural**.
  - The screen may become slightly darker when you play **LED Clear Motion**.

## Picture Off

MENU → Picture → Picture Off → ENTER

The screen is turned off but the sound remains on. Press any button except the power key or volume button to turn on the screen.

## Reset Picture

MENU → Picture → Reset Picture → ENTER

Resets your current picture mode to its default settings.

# Changing the Preset Sound Mode

## Sound Mode

MENU → Sound → Sound Mode → ENTER

If **Speaker Select** is set to **External Speaker**, **Sound Mode** is disabled.

- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.

- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sounds to allow a better listening experience for the hearing impaired.
- **Stadium**

  When you set **Soccer Mode** (**MENU** → **Applications** → **Soccer Mode**) to **On**, **Sound Mode** is set to **Stadium** automatically so that the sound settings are fixed at settings most suitable for sporting events.

  This function is only available on certain models in specific geographical areas.

# ❑ Adjusting Sound Settings

## ■ Sound Effect

MENU → Sound → Sound Effect → ENTER

(standard sound mode only)

Use the up and down arrow keys to select an option, and then press ENTER.

If **Speaker Select** is set to **External Speaker**, **Sound Effect** is disabled.

- **DTS TruSurround HD**
  This function provides a virtual 5.1 channel surround sound experience through a pair of speakers or headphones using HRTF (Head Related Transfer Function) technology.
- **DTS TruDialog**
  This function allows you to increase the intensity of a voice over background music or sound effects so that dialog can be heard more clearly.

- **Equalizer**

  Use **Equalizer** to customize sound setting for each speaker.

  **Balance**: Adjusts the balance between the right and left speaker.

  **100Hz / 300Hz / 1kHz / 3kHz / 10kHz** (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.

  **Reset**: Resets the equalizer to its default settings.

## Speaker Settings

MENU → Sound → Speaker Settings → ENTER

- **Speaker Select** TOOLS

  A sound echo may occur due to a difference in decoding speed between the main speaker and the audio receiver. In this case, set the TV to **External Speaker**.

  When **Speaker Select** is set to **External Speaker**, the volume and **MUTE** buttons will not operate and the sound settings will be limited.

  When **Speaker Select** is set to **External Speaker**, you should use these settings.

  - **TV Speaker**: Off, **External Speaker**: On

  When **Speaker Select** is set to **TV Speaker**, you should use these settings.

  - **TV Speaker**: On, **External Speaker**: On

  If there is no video signal, both speakers will be mute.

- **Auto Volume**

  To equalize the volume level on each channel, set to **Normal**.

  **Night**: This mode provides an improved sound experience compared to **Normal** mode, making almost no noise. It is useful at night.

  To use the volume control on the source device connected to the TV, set **Auto Volume** to **Off** on the TV. Otherwise, a change to the volume control of the source device may not be applied.

- **TV Installation Type**

  Specify the TV's installation type. Choose between **Wall Mount** and **Stand** to optimise the TV's sound automatically.

## Digital Audio Out

(depending on the country and model)

MENU → Sound → Digital Audio Out → ENTER

Digital Audio Out is used to provide digital sound, reducing interference going to speakers and various digital devices such as a DVD player.

- **Audio Format**: You can select the Digital Audio output format. The available Digital Audio output format may differ depending on the input source.

  By connecting to 5.1ch speakers in a dolby digital setup, maximize your interactive 3D sound experience.

- **Audio Delay**: Correct audio-video mismatch, when watching TV or video, and listening to digital audio output using an external device such as an AV receiver (0ms ~ 250ms).

## Additional Settings

(depending on the country and model)

MENU → Sound → Additional Settings → ENTER

- DTV Audio Level (digital channels only): This function allows you to reduce the disparity of a voice signal (which is one of the signals received during a digital TV broadcast) to a desired level.
  - According to the type of broadcast signal, MPEG/HE-AAC can be adjusted between -10dB and 0dB.
  - To increase or decrease the volume, adjust between the range 0 and -10 respectively.

- **Digital Audio Out**

  Digital Audio Out is used to provide digital sound, reducing interference going to speakers and various digital devices such as a DVD player.

  **Audio Format**: You can select the Digital Audio output format. The available Digital Audio output format may differ depending on the input source.

  By connecting to 5.1ch speakers in a dolby digital setup, maximize your interactive 3D sound experience.

  **Audio Delay**: Correct audio-video mismatch, when watching TV or video, and listening to digital audio output using an external device such as an AV receiver (0ms ~ 250ms).

- **Dolby Digital Comp** (digital channels only): This function minimizes signal disparity between a dolby digital signal and a voice signal (i.e. MPEG Audio, HE-AAC, ATV Sound).

  This function is available only when the **Audio Format** is set to **Dolby Digital**, **Dolby Digital Plus**, **AAC**, or **HE-AAC**.

  Select **Line** to obtain dynamic sound, and **RF** to reduce the difference between loud and soft sounds at night time.

  **Line**: Set the output level for signals greater or less than -31dB (reference) to either -20dB or -31dB.

  **RF**: Set the output level for signals greater or less than -20dB (reference) to either -10dB or -20dB.

## Reset Sound

MENU → Sound → Reset Sound → ENTER

Reset all sound settings to the factory defaults.

# ❑ Executing initial setup

## ■ Setup

MENU → System → Setup → ENTER

Configure the channels and the time when setting up the TV for the first time or when resetting the unit.

- Execute the initial setup following instructions that the TV guides.
- Select the proper county. The setup process and TV menu will differ depending on selecting country.
- Enter your 4-digit PIN, the default of which is 0-0-0-0.

# ❑ Setting the Time

## ■ Time

(depending on the country and model)

MENU → System → Time → ENTER

The current time will appear every time you press the **INFO** button.

- **Clock Set** (depending on the country and model): Set the **Date** and **Time**.

  You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

- **Clock** (depending on the country and model): Setting the clock is for using various timer features of the TV.

  If you disconnect the power cord, you have to set the clock again.

  **Clock Mode**: Set up the current time manually or automatically.

  - **Auto**: Set the current time automatically using the time from a digital channel.

  The antenna must be connected in order to set the time automatically.

- **Manual**: Set the current time manually.

Depending on the broadcast station and signal, the auto time set up may not be correct. In this case, set the time manually.

- **Clock Set**: Set the **Date** and **Time**.

  Available only when **Clock Mode** is set to **Manual**.

  You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

- **Time Zone** (depending on the country and model): Select your time zone.

  This function is only available when the **Clock Mode** is set to **Auto**.

## ❑ Using the Sleep Timer

MENU → System → Time → Sleep Timer → ENTER

- Sleep Timer (TOOLS): Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).

  To cancel the Sleep Timer, select Off.

# ❑ Setting the On/Off Timer

MENU → System → Time → On Timer <or> Off Timer → ENTER

- **On Timer**: Three different on timer settings can be made. You must set the clock first.

  **Setup**: Select **Off, Once, Everyday, Mon~Fri, Mon~Sat, Sat~Sun** or **Manual** to set at your convenience. If you select **Manual**, you can set up the day you want to activate the timer.

  The ✓ mark indicates the day you've selected.

  **Time**: Set the hour, minute, am/pm.

  **Volume**: Set the desired volume level.

**Source**: To select the source of the content that will play when the TV turns on. You can:

- Select **TV** and have the TV display a specific air or cable channel.
- Select **USB** and have the TV play back photo or audio files from a USB device.
- Select a source on your TV that you have connected a set-top box to, and have the TV display a channel from the set-top box.

The USB device must be connected to your TV before you can select **USB**.

If you select a source other than **TV** or **USB**, you must:

- Have a cable or satellite set-top box attached to that source.
- Set the set-top box to the channel you want to watch when the TV goes on.
- Leave the set-top box turned on.

When you select a source other than **TV** or **USB**, the **Antenna** and **Channel** options will disappear.

**Antenna** (when the **Source** is set to **TV**): Select the desired broadcasting signal.

**Channel** (when the **Source** is set to **TV**): Select the desired channel.

**Music / Photo** (when the **Source** is set to **USB**): Select a folder in the USB device containing music or photo files to be played when the TV is turned on automatically.

- If there is no music file on the USB device or the folder containing a music file is not selected, the Timer function does not operate correctly.
- When there is only one photo file in the USB, the Slide Show will not play.

- A folder with too long of a name cannot be selected.
- Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.
- It is recommended that you use a USB memory stick and a multi card reader when using **On Timer**.
- The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because these devices take a long time to be recognized.

- **Off Timer**: Three different off timer settings can be made. You must set the clock first.

  **Setup**: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual** to set at your convenience. If you select **Manual**, you can set up the day you want to activate the timer.

  The ✓ mark indicates the day you've selected.

  **Time**: Set the hour, minute, and am/pm.

# ❑ Economical Solutions

## ■ Eco Solution

MENU → System → Eco Solution → ENTER

- **Energy Saving**: This adjust the brightness of the TV in order to reduce power consumption.

- **No Signal Power Off** : Sets how quickly the TV switches to standby mode, if no picture is being received.
  - Disabled when the PC is in power saving mode.
- **Auto Power Off**: The TV will be automatically turned off when no user operation is received for 4 hours.
  - If the **Auto Power Off** option is set to **Off**, the TV will stay on even if no operations are performed on the TV.

# ❑ Other Features

## ■ Menu Language

MENU → System → Menu Language → ENTER

Set the menu language.

1. Select **Menu Language** and press the **ENTER** button.
2. Choose desired language and press the **ENTER** button.

## Auto Protection Time

MENU → System → Auto Protection Time → ENTER

- Auto Protection Time: If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

## General

(depending on the country and model)

MENU → System → General → ENTER

- **Game Mode**: When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience selecting the game menu.

  **NOTE**

  - Precautions and limitations for game mode
    - To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.
    - If you display the TV menu in **Game Mode**, the screen shakes slightly.

- **Game Mode** is not available when the input source is set to TV.
- After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.
- When **Game Mode** is enabled, **Picture Mode** is set to **Standard** and **Sound Mode** to **Movie** automatically.

- **Panel Lock**: Lock or unlock all the keys on the panel.
- **Boot Logo**: Enable/disable displaying the logo while the TV starts up.
- **AV Color System** (depending on the country and model): Normally the TV can receive image and sound with good quality when in the mode **Auto**. This mode detects the signal color system automatically. In case of some signal reception with color unsatisfactory, select the **AV Color System** Mode to **PAL-M**, **PAL-N** or **NTSC**.

  Available only in AV mode.

## Change PIN

MENU → System → Change PIN → ENTER

The **Change PIN** screen will appear. Choose any 4 digits for your PIN and enter it in the **Enter New PIN**. Re-enter the same 4 digits in the **Confirm New PIN**. When the Confirm screen appears, press the **ENTER** button. Your PIN has been memorized.

- The PIN input screen appears before the setup screen. Enter your 4-digit PIN, the default of which is 0-0-0-0.
- If you forget the PIN code, press the remote control buttons in the following sequence in Standby mode, which resets the PIN to “0-0-0-0” : **MUTE** → 8 → 2 → 4 → **POWER** (on)

## DivX® Video On Demand

MENU → System → DivX® Video On Demand → ENTER

Shows the registration code authorized for the TV. If you connect to the DivX web site and register with 10-digit registration code, you can download the VOD activation file. Once you play it using Media Play, the registration is completed.

For more information on DivX® VOD, visit “http://vod.divx.com”.

# ❑ Using the Source List

## ■ Source List

MENU → Applications → Source List → ENTER

When you press the **SOURCE** button, **Source** screen will be displayed at once.

You can only choose external devices that are connected to the TV. In **Source**, connected inputs are highlighted.

For the detailed information, refer to “Changing the Input Source” in User Manual.

# ❑ Using the Soccer Mode

## ■ Soccer Mode TOOLS

MENU → Applications → Soccer Mode → ENTER

This mode provides optimized condition for watching sports games.

- A (Zoom): Pause playback and divide the picture into 9 parts. Select a part to zoom it in.

When the **Soccer Mode** is **On**, the picture and sound modes are set to **Stadium** automatically.

If you turn the TV off while watching **Soccer Mode**, the **Soccer Mode** will be disable. (depending on the country and model)

# ❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music and movie files to the USB port on the side of the TV.
3. When USB is connected to the TV, popup window appears. You can select the **Photos**, **Videos** or **Music** directly.

- It might not work properly with unlicensed multimedia files.
- Need-to-Know List before using Media Contents
  - MTP (Media Transfer Protocol) is not supported.
  - Supported file systems are FAT and exFAT.
  - Certain types of USB Digital camera and audio devices may not be compatible with this TV.
  - Media Contents only supports sequential jpeg format.
  - Media Contents only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers (USB HUB are not supported). Devices should be connected directly to the TV's USB port.

- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15360 x 8640 pixels.
- For unsupported or corrupted files, the “Not Supported File Format” message is displayed.
- The scene search and thumbnail functions are not supported in the **Videos**.

- MP3 files with DRM that have been downloaded from a non-free site cannot be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
- PTP connection mode is fully available only with digital cameras. When connecting a smartphone or tablet to the TV using PTP mode, it may not be recognized. (depending on the country and model)
- A USB device that requires high power (more than 500mA or 5V) may not be supported. The HDD (Hard Disk Drive) connected to USB is not supported.
- If the TV has been no input during time set in **Auto Protection Time**, the screen saver will run.

- The power-saving mode of some external hard disk drives may be released automatically when connected to the TV.
- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- If a file deleted from the PC is still found when Media Contents is run, use the “Empty the Recycle Bin” function on the PC to permanently delete the file.
- If the number of files and folders saved on a USB storage device is approximately over 4000, the files and folders may not appear and some folders may not be opened.

## Disconnecting a USB Device

1. Press the **SOURCE** button.
2. Select a desired USB device, and then press the **TOOLS** button. The **Tools** menu appears.
3. Select **Remove USB**, and then wait until the selected USB device is disconnected. You can remove a USB device from the TV.

NOTE To remove a USB device from the TV, we recommend use **Remove USB** function.

# ❑ Using the Media Contents

MENU → Applications → Media Play → ENTER

Enjoy photos, music and movie files saved on a USB Mass Storage Class (MSC) device.

1. Press the **MEDIA.P** button.
2. Press ◄/► button to select desired menu (**Photos**, **Videos**, **Music**), then press the **ENTER** button.
3. Press ◄/► button to select desired device, then press the **ENTER** button again.
4. Press the ▲/▼/◄/► button to select the desired file in the list, then press the **ENTER** button or ► (Play) button.

## Playing the selected files

1. Press the ▲ button to select **Options** at the top of each main screen and select **Play Selected**.
2. Select the desired files.
   - The check box appears to the left of the selected files.
   - Press **ENTER** button again to deselect the file.
3. Press the ▲ button to select **Play**.
   - You can select or deselect all files pressing the **Select All / Deselect All**.

## ❑ Playing the Photos / Videos / Music

During playing a file, press the ▲/▼/◄/► button to select the desired menu.

- When the option menu is not displayed, press the **TOOLS** button or **ENTER** button.
- You can also use ►/II/■/◄◄/►► buttons on the remote control during playback.
- If you press the **INFO** button during playback, you can view the playback information.

# Playback menu

| Button | Operation | Photos | Videos | Music |
|---|---|---|---|---|
| ❮ / ❯ | Previous / Next | ● | | |
| ▶ / ⏸ | Start Slide Show / Stop Slide Show | ● | | |
| | Play / Pause | Mini Player* | ● | ● |
| ⏮ / ⏭ | Previous / Next | Mini Player* | ● | ● |
| ◀◀ / ▶▶ | Rewind / Fast forward | | ● | ● |

*When setting the Background Music to Mini Player in Photos, these buttons appear.

## Photos

| Button | Operation | |
|---|---|---|
| | **Slideshow Settings** | You can set the **Speed** and **Effects** during the slide show. |
| | **Zoom** | You can zoom into images in full screen mode. |
| | **Rotate** | You can rotate images in full screen mode. |
| | **Background Music / Mini Player** | You can set background music when watching a slide show. / You can control simple playback menus. |
| | **Settings** | **Picture Mode / Sound Mode**: You can adjust the picture or sound setting.<br>**Information**: You can see detailed information about the played file. |

- During the slide show, all files in the file list will be displayed in order.
- When you press the ► (Play) button (or ▲ button → **Options** → **Slide Show**) in the file list, slide show will be started immediately.
- During the slide show, you can adjust the slide show speed using ◄◄ (REW) or ►► (FF) button.

- Supported Photo Formats
  - For the details, refer to “Specifications” in User Manual.

# Videos

| Button | Operation | |
|---|---|---|
| | **Search** | **Search Titles**: You can move the other file directly.<br>**Search Time bar**: You can search the video using ◄ and ► button at one minute interval or entering the number directly.<br>It may not be supported depending on the input source. |
| | **Repeat Mode** | You can play movie files repeatedly. |
| | **Picture Size** | You can adjust the picture size to your preference. |
| | **Settings** | **Subtitle Settings**: You can play the video with subtitles. This function only works if the subtitles are the same file name as the video.<br>**Picture Mode / Sound Mode**: You can adjust the picture or sound setting.<br>**Audio Language**: You can change the audio language if the video has more than one language.<br>**Information**: You can see detailed information about the played file. |

If video time information is unknown, play time and progress bar are not displayed.

In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game itself.

- Supported Subtitle / Video Formats

  For the details, refer to “Specifications” in User Manual.

## Music

| Button | Operation | |
|---|---|---|
| | **Repeat** | You can play music files repeatedly. |
| | **Shuffle** | You can play the music randomly. |
| | **Sound Mode** | You can adjust the sound setting. |

Only displays the files with supported music file extension. Other file extensions are not displayed, even if they are saved on the same USB device.

If the sound is abnormal when playing music files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated music file may cause a sound problem.)

- Supported Music Formats

  For the details, refer to “Specifications” in User Manual.

## Setting the Encoding language

Set the encoding language if the text is not supported.

1. Press the ▲ button to select **Options** at the top of music main screen and select **Encoding**.
2. Select the desired encoding language.

# ❑ Viewing the e-Manual

## ■ e-Manual

MENU☰ → Support → e-Manual → ENTER↵

You can read the introduction and instructions about the TV features stored in your TV.

For the detailed information about e-Manual Screen, refer to “How to view the e-Manual” in User Manual.

# ❑ Using the Self Diagnosis

## ■ Self Diagnosis

(depending on the country and model)

MENU → Support → Self Diagnosis → ENTER

- Picture Test: Use to check for picture problems.

  Yes: If the test picture does not appear or there is noise in the test picture, select Yes. There may be a problem with the TV. Contact Samsung's Call Center for assistance.

  No: If the test picture is properly displayed, select No. There may be a problem with your external equipment. Please check your connections. If the problem persists, refer to the external device's user manual.

- **Sound Test**: Use the built-in melody sound to check for sound problems.
  - If you hear no sound from the TV's speakers, before performing the sound test, make sure **Speaker Select** is set to **TV Speaker** in the **Sound** menu.
  - The melody will be heard during the test even if **Speaker Select** is set to **External Speaker** or the sound is muted by pressing the **MUTE** button.

  **Yes**: If you can hear sound only from one speaker or not at all during the sound test, select **Yes**. There may be a problem with the TV. Contact Samsung's Call Center for assistance.

  **No**: If you can hear sound from the speakers, select **No**. There may be a problem with your external equipment. Please check your connections. If the problem persists, refer to the external device's user manual.

- **Signal Information** (depending on the country and model): (digital channels only) An HD channel's reception quality is either perfect or the channels are unavailable. Adjust your antenna to increase signal strength.
- **Reset**: You can restore all TV settings to the factory defaults.
  - The PIN input screen appears before the setup screen.
  - Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

# ❑ Updating the Software

## ■ Software Update

MENU → Support → Software Update → ENTER

The **Software Update** menu lets you upgrade your TV's software to the latest version.

software is upgraded, video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.

- **Update now**: Insert a USB drive containing the firmware upgrade file, downloaded from "www.samsung.com" into the TV.

  Please be careful not to disconnect the power or remove the USB drive until upgrades are complete. The TV will be turned off and on automatically after completing the firmware upgrade.

# ❑ Changing the Use Mode

## ■ Use Mode

MENU → Support → Use Mode → ENTER

Select the **Use Mode** suitable for your place. We strongly recommend you select **Home Use**.

If your TV has been unintentionally set to **Store Demo**, you can change the mode with this option.

- **Home Use**: **Home Use** is the default setting.
- **Store Demo**: **Store Demo** is for retail environments only. If you select **Store Demo**, some functions will not work, and the picture settings will be reset every 5 minutes.

# ❑ Viewing the Contact Samsung

## ■ Contact Samsung

MENU → Support → Contact Samsung → ENTER

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centers, and how to download products and software.